DOCUMENT RESUME

ED 138 502 SO 009 939

AUTHOR Berger, Michael L.
TITLE A Generic Strategy for the Investigation and Analysis of Self-Contained Buildings and Planned Communities.
PUB DATE 25 Nov 76
NOTE 12p.; Paper presented at Annual Meeting of the National Council for Geographic Education (San Francisco, California, November 24-27, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Community Characteristics; *Community Study; Concept Formation; Concept Teaching; Elementary Secondary Education; *Geographic Concepts; *Geography Instruction; *Human Geography; Inquiry Training; Learning; Matrices; Social Studies; Socioeconomic Influences; Tables (Data); *Teaching Techniques; Urban Studies

ABSTRACT

Inquiry techniques are described in which students investigate geographic phenomena in microcosm. The objective of this strategy is to enable students to examine geographic concepts and generalizations on a level which they can easily understand. Specifically, strategies for investigating and analyzing self-contained buildings and planned communities as micro-geographic phenomena are presented. Ways in which self-contained buildings and planned communities, which provide opportunities for residence, employment, and recreation within a controlled and easily observable environment, can be used as models for study of metropolitan regions are specified. First, students would be introduced to the nature of self-contained buildings and planned communities. Second, they would be presented with a three-dimensional self-containment matrix, which provides a framework in which to place answers to basic questions such as who, what, where, when, and to what extent certain functions, people, and percentages interact in certain ways. Working with the variables in the matrix expands the students' understandings of geographic concepts such as population density, personal interaction, and residential area. References are included in the document. (Author/DB)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED138502

A GENERIC STRATEGY FOR THE INVESTIGATION AND ANALYSIS OF SELF-CONTAINED BUILDINGS AND PLANNED COMMUNITIES

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY
Michael Berger

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER

A paper delivered at the 62nd Annual Convention of the National Council for Geographic Education in San Francisco. November 25, 1976

by

Michael L. Berger

School of Education
Fordham University

SP009939

One of the more interesting recent developments within the discipline of geography has been the emergence of the sub-area of "micro-geography." In simplest terms, micro-geography is an attempt to investigate and teach geographic phenomena in microcosm. It seeks to examine geographic concepts and generalizations on a level that might be more easily understood by students previously unfamiliar with the field. For instance, before studying community transportation patterns, students might explore the traffic flow within their own school corridors. The insights gathered from that exploration would then be expanded upon and eventually applied to the urban, rural, or suburban area in which they live. Similarly, urban youngsters residing in housing projects might undertake a field investigation to locate the significant nodes within these building complexes. Once that had been accomplished, it ought to be easier for those pupils to identify nodes within the larger neighborhood and, finally, the city as a whole.

Copyright 1976 by Michael L. Berger

While these examples are representative of what could be done, they also indicate a need within the sub-area of micro-geography. For, without the existence of a generic strategy for investigating and analyzing micro-geographic phenomena, the techniques and strategies alluded to earlier are liable to degenerate into mere gimmickry. It is for this reason that I have become interested in the possible application of the micro-geographic approach to self-contained buildings and planned communities. Since the latter mirror to a large extent the spatial relationships that exist elsewhere, yet present them on a more manageable scale, they seem ideal subjects for investigations of the type that we have been describing.

Before proceeding further, it might be wise to define exactly what is meant by self-contained buildings and planned communities. The former, also known as multi-functional structures, provide opportunities for residence, employment, and recreation within a climatically-controlled environment. Such buildings have been constructed in Chicago, Minneapolis-St. Paul, and New York City. For instance, the John Hancock Center in Chicago is a 100-story structure, containing 29 floors of office space, 57 floors of apartment condominiums, and 11 floors of restaurants, lounges, stores, and a health and swimming club. In a previous article,[1] I have termed it a true "vertical city."

While planned communities are similar to self-contained buildings in that they normally include facilities for housing, economic services, and social activities, they differ

as regards population density and the scale and variety of the facilities present. Nonetheless, their planned nature sets them apart from the surrounding neighborhood and creates a type of miniature society. Examples of such communities would be Reston, Virginia; Columbia, Maryland; and Roosevelt Island in New York City.

As was stated earlier, both self-contained buildings and planned communities provide the key elements necessary for any functioning society, yet do it on a scale more easily comprehended than a metropolitan region, a city or suburb, or even a small town. With a generic strategy to study these phenomena, it might be possible to systematically investigate the geographic aspects present. The results of this inquiry could then be applied to successively wider areas.

The remainder of this paper will be concerned with presenting such a strategy. While undoubtedly others could be developed, this one has the advantage of being simple enough that a secondary school student could use it. At the same time, it seems to guarantee an examination of the basic geographic concepts and generalizations at work in any community --regardless of size.

Following a brief introduction to the nature of self-contained buildings and planned communities, students would be presented with the three dimensional "Self-Containment Matrix." Despite the somewhat technical sounding title, this matrix merely provides a framework in which to place the answers to such basic questions as who, what, where, why, where, and to what extent. As the various cells are filled in, the pupil's

geographic knowledge and understanding should correspondingly increase.

Each of the three dimensions of the Self-Containment Matrix has a number of variables. One side deals with the people who inhabit the community. They have been divided into six categories, roughly defined by chronological age. Thus, there are "pre-schoolers," "young children," "teenagers," "single adults," "couples," and "senior citizens."

The second dimension concerns the functions provided for, or performed, within the community. Here, we have adopted the elements that were cited previously as defining a self-contained building: residence, employment, and entertainment/recreation. (Since a significant portion of the population is either too young or too old to work, "employment" in this case is broadly construed. It would include children in school as well as the elderly engaged in volunteer work.)

The final dimension asks for a judgment regarding the degree of self-containment present. This is expressed by a percentage figure. Ideally, 100% of each population group should be able to live, work, and play within the confines of the building or community. That would be true self-containment. However, since these buildings and communities have been built predominantly near other inhabited areas, the isolation that might make self-containment a reality is usually lacking. A recent study of the John Hancock Center[2] mentioned earlier found that 93% of the people surveyed chose to leave that structure at least once each day, despite the theoretical possibility of self-containment. The study

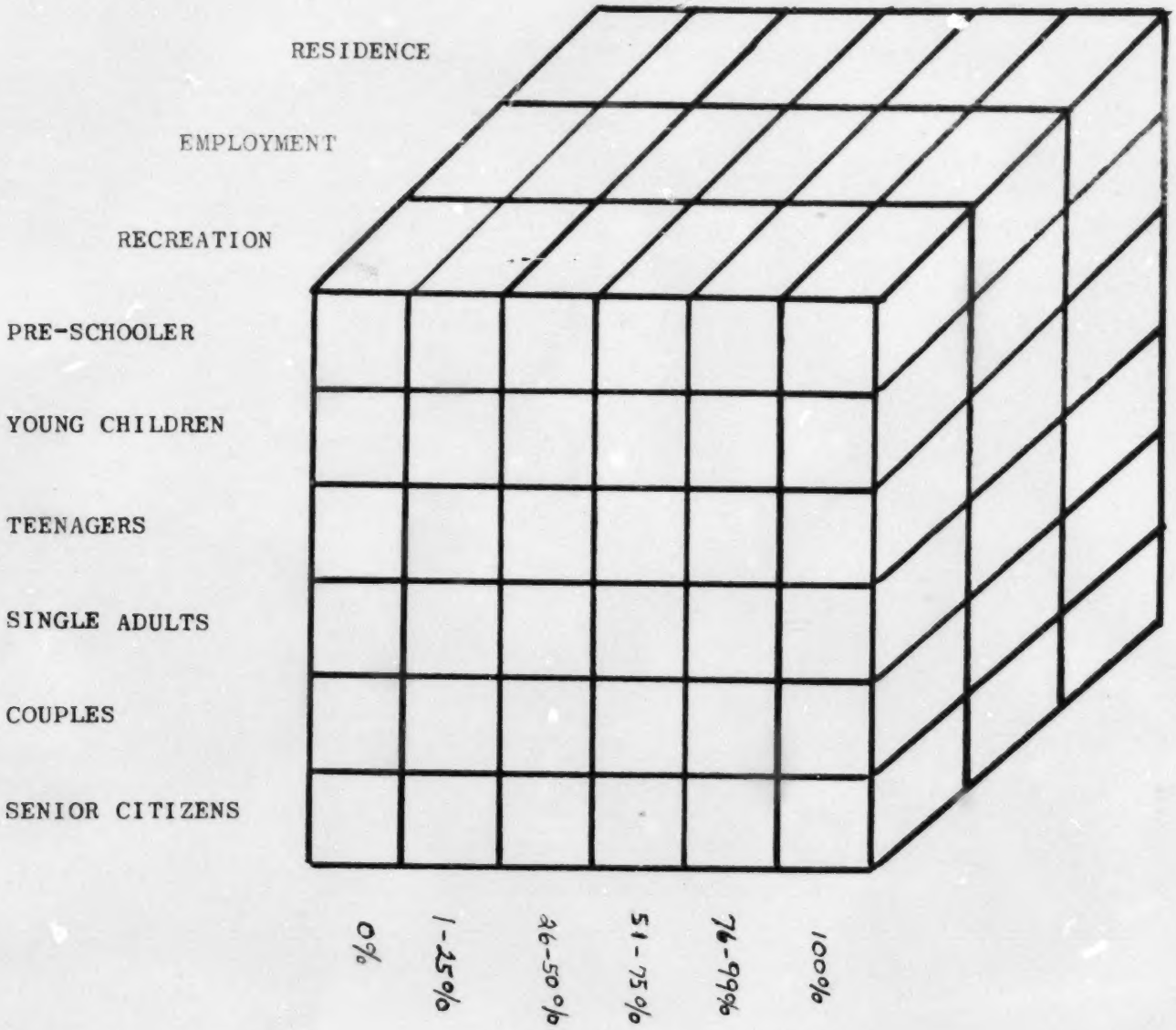
concluded that the most obvious reason for this was the spatial location of the Center in downtown Chicago. The economic and social diversity available beyond the confines of the building seem to act like a magnet, drawing the Center's inhabitants outward.

At the opposite end of the scale would be those people for whom a particular function can not be obtained within the self-contained building or the planned community. Thus, in a situation where no lesiure time activities are available for senior citizens residing in the building or community, the elderly would have to go outside their immediate environs to have this need fulfilled. In that case, it could be said that the percentage of self-containment for the entertainment/ recreation function as applied to senior citizens was zero. Students whose investigation produced such results could validly argue that the building or the community was dysfunctional in that aspect.

The majority of observations, however, are most likely to discover that the degree of self-containment falls somewhere between the two extremes of 100 and zero percent. Self-contained buildings and planned communities, alomst by definition, must make <u>some</u> provision in each of the three functional areas for the different population groups. Nonetheless, planners have not yet developed their art to such an extent that all needs are fulfilled for each resident.

On the following page, the Self-Containment Matrix is presented in diagrammatic form. When presented to students prior to their field investigations, it would be accompanied

Self-Containment Matrix



by a number of representative explanatory questions, such as: What percentage of the single adults present in the building on a given day actually live there? Are schools available within the community for pre-schoolers (day-care facilities and nursery schools), young children, teenagers, and adults? For which of the three functional areas is there the greatest degree of self-containment? Which population group is most favored by the facilities present in the building or planned community.

Obviously, many more questions could be developed. (The particular form of this cube would seem to indicate that over one hundred would not be difficult to create.) However, the purpose of listing these questions is not to be exhaustive, but rather to offer the students a springboard from which they can further develop the inquiry on their own. Indeed, part of the learning experience would be the framing of these questions.

Up to this point, we have not really concerned ourselves with how the investigation and analysis of self-contained buildings and planned communities teaches geographic concepts and generalizations. As we shall see, some geographic learnings are inherent in the use of the matrix itself. Others, however, require a supplementary inquiry-based questioning strategy.

As an investigatory tool, the Self-Containment Matrix helps to answer the questions: who, what, where, and to what extent? (You will recall that these were some of the questions cited earlier in justification for developing the

matrix. The variables selected for inclusion in the matrix and their positioning around the cube are the reasons that these questions automatically will be asked. In so doing, students are introduced to several aspects of the discipline of geography.

For instance, in studying the relative status of the different population groups within the building or the community, the concepts of "population density," "personal interaction," and "residential area" would undoubtedly surface. While the term used to identify the concept might vary from that normally accepted in the field, this problem can be corrected at a later time, (probably when these "micro" findings are applied to a larger geographic area). The important point is that the pupils recognize the concept, not what they call it.

In addition to this conceptual development, it is reasonable to assume that students would begin to group these concepts together as well, thus forming elementary geographic generalizations or principles. For example, the youngster who notices that smaller residences are less expensive to buy/or rent may be led to generalize that: "Population density is a function of the cost of housing." While undoubtedly incorrect generalizations will be formed by some students, they at least will be thinking in geographic terms. In other words, "process" learning has taken place. As the pupil's geographic education and experiences widen, his or her generalizations will correspondingly increase in validity and complexity.

Nonetheless, questions that begin with "who," "what," "where," and "to what extent" are likely to be rather basic in orientation. They tend to elicit responses at the lower end of Bloom's taxonomy of the cognitive domain. Therefore, it is important to go beyond the Self-Containment Matrix with students, to explore the realms of how and why phenomena take place. This requires the supplementary, inquiry-based questioning strategy mentioned earlier and explained in some detail in a recent article in The Journal of Geography.[3]

As students begin to discover geographic concepts, and link them together to form tentative hypotheses and generalizations, it is important that they begin to confront higher-level questioning. Here, the emphasis should be on analysis, synthesis, and evaluation of evidence. It is no longer sufficient to recognize a given geographic concept or generalization. Pupils now must discover how the concept or generalization manifests itself and why it exists at all.

For instance, if the students have developed the concept of "neighborhood," they might be challenged to answer such questions as: Are there distinct physical, cultural, and/or economic sectors? If so, how are they differentiated within the self-contained building or the planned community? If not, why not? Is there any place set aside for social interaction among the residents? If so, is this "community center" the result of prior planning or spontaneous development? If not, why is there no such place? Are the different economic, social, and political functions of the building or the community effectively joined? If so, how? If not, why not?[4] Similar

questions could be asked of other geographic concepts, and of generalizations as well.

Whether or not these higher level questions will be generated by the students or posed by the instructor will depend primarily on the aptitude and achievement levels of the class. In either case, their relevance and impact will increase if they flow naturally from findings generated through the use of the Self-Containment Matrix. In a sense, the matrix sets the stage for analysis, synthesis, and evaluation questions, but does not actually ask them. In the end, the ability of the pupils and their teacher to formulate higher-level inquiries will determine the intellectual heights to which the generic strategy presented in this paper, including the Self-Containment Matrix, may lead.

References

1 Berger, Michael L. "Vertical Cities of the Future: Implications for the Study and Teaching of Urban Geography." Social Studies, LXV (October, 1974), 211-213.

2 _____. "Environmental Perceptions of Residents of A Multi-Functional Building." A paper delivered at the Urban Physical Environment: A Conference on Vegetation, Structure, and Space for Amenities; August 26, 1975; Syracuse, New York; p. 5.

3 _____. "Introducing Urban Geography through the Study of Self-Contained Buildings." Journal of Geography, LXXV (March, 1976), 149-153.

4 Ibid., pp. 150-151.